1. **Species:** *Saussurea weberi* (Weber's saw-wort)

2. **Status:** Table 1 summarizes the current status of this species or subspecies by various ranking entity and defines the meaning of the status.

Table 1. Current status of *Saussurea weberi*

Entity	Status	Status Definition
NatureServe	G2G3	Between globally imperiled (high risk of extinction) and globally vulnerable (moderate risk of extinction) due to a restricted range (regional endemic) with few populations (fewer than 30 total occurrences), some of which are fairly large (1,000's of individuals), but many are very small (1-5 individuals)
CNHP	S2	Populations in Colorado are usually very small with 17 total occurrences in Colorado, some of which have been impacted by mining and grazing.
Colorado State List Status	None	
USDA Forest Service	None	
USDI FWS[b]	None	

[a] Colorado Natural Heritage Program.
[b] US Department of Interior Fish and Wildlife Service.

The 2012 U.S. Forest Service Planning Rule defines Species of Conservation Concern (SCC) as "a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area" (36 CFR 219.9). This overview was developed to summarize information relating to this species' consideration to be listed as a SCC on the Rio Grande National Forest, and to aid in the development of plan components and monitoring objectives.

3. Taxonomy

Saussurea weberi is recognized as valid by the NRCS Plants National Database, ITIS, NatureServe, the Flora of North America, Weber and Wittmann (2012), and Ackerfield (2015).

4. Distribution, abundance, and population trend on the planning unit [12.53.2,3,4]:

Weber's saw-wort is a regional endemic known from southwestern Montana, northwestern Wyoming, and central Colorado. Recently (2010), the southern-most known occurrence was found in the Sangre de Christo Wilderness in southern Colorado. Weber's saw-wort is not known from the Rio Grande NF, but the 2010 discovery is 1.3 air miles from the Rio Grande Boundary. This, in combination with the presence of potential habitat (alpine tundra and wet ledges at high elevation) on the Rio Grande, makes is likely that Weber's saw-wort is present on the Rio Grande NF. Most populations of Weber's saw-wort in Colorado are small, consisting of a few to dozens of individuals scattered over areas less than an acre. One population has thousands of individuals over 17 acres. The occurrence that is proximate to the Rio Grande NF is a few dozen individuals over less than an acre. Several of the occurrences in Colorado have downward population trends due to impacts from mining and associated activities, while others have upward trends after disturbance ceases. The majority of occurrences do not have trend data.

Table 2. Known Occurrence Frequency within the Planning Area (CoNHP database)

Known Occurrences in the past 20 years	0
Year Last Observed	0

5. Brief description of natural history and key ecological functions [basis for other 12.53 components]:

Weber's saw-wort is known from poorly developed soils in both wet and dry high elevation (10,000-14,300) calcareous (limestone) rocky areas in Colorado including alpine tundra, mine tailings, glaciated slopes and ridges, and wet ledges. Weber's saw-wort has been observed growing solitarily and in association with alpine tundra communities. There are some indications that Weber's saw-wort may capitalize on some disturbance, since seedlings are often observed in areas that are in the vicinity of disturbance. However, Weber's saw-wort is also associated with stable alpine plant communities so it is unlikely to be truly disturbance adapted.

6. Overview of ecological conditions for recovery, conservation, and viability [12.53 7, 9?, 10, 11, 12] including Threats and Risk Factors:

Observed impacts to Weber's saw-wort include disturbance from mining and associated activities, motorized recreation, wildlife (gophers) and domestic grazing, and road construction. Other possible threats to Weber's saw-wort include genetic drift since the 3 main population centers are disjunct from each other across large spans of discontinuous habitat, small population sizes leave individual populations susceptible to stochastic events and inbreeding depression, and climate change may impact the timing and amount of precipitation as well as temperature regimes.

7. Key literature:

Ackerfield, J. 2015. Flora of Colorado. Botanical Research Institute of Texas Press. Fort Worth, TX.

Colorado Natural Heritage Program (CNHP). 2015. Element Occurrence Records for *Saussurea weberi.* Unpublished data stored on U.S. Forest Service Geographic Information Systems Servers. Compiled onto USFS Servers from CNHP database February 2015.

Glisson, B. 2004. *Saussurea weberi* Hultén (Weber's saw-wort): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/saussureaweberi.pdf

Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico. 19+ vols. New York and Oxford. *Saussurea weberi* treatment accessed September 25, 2015 at http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id= 250067464

Integrated Taxonomic Information System (ITIS). 2015. Online database. http://www.itis.gov/ Accessed September 25, 2015.

NatureServe, 2015. NatureServe Explorer. Online database. http://explorer.natureserve.org/index.htm Accessed September 25, 2015.

USDA NRCS Plants National Database. 2015. Online database. http://plants.usda.gov/ Accessed September 25, 2015.

Weber, W.A. and Wittmann, R.C. 2012. Colorado Flora 4th ed. University of Colorado Press. Boulder, CO.

8. Map of Known Occurrences and Modeled Suitable Habitat

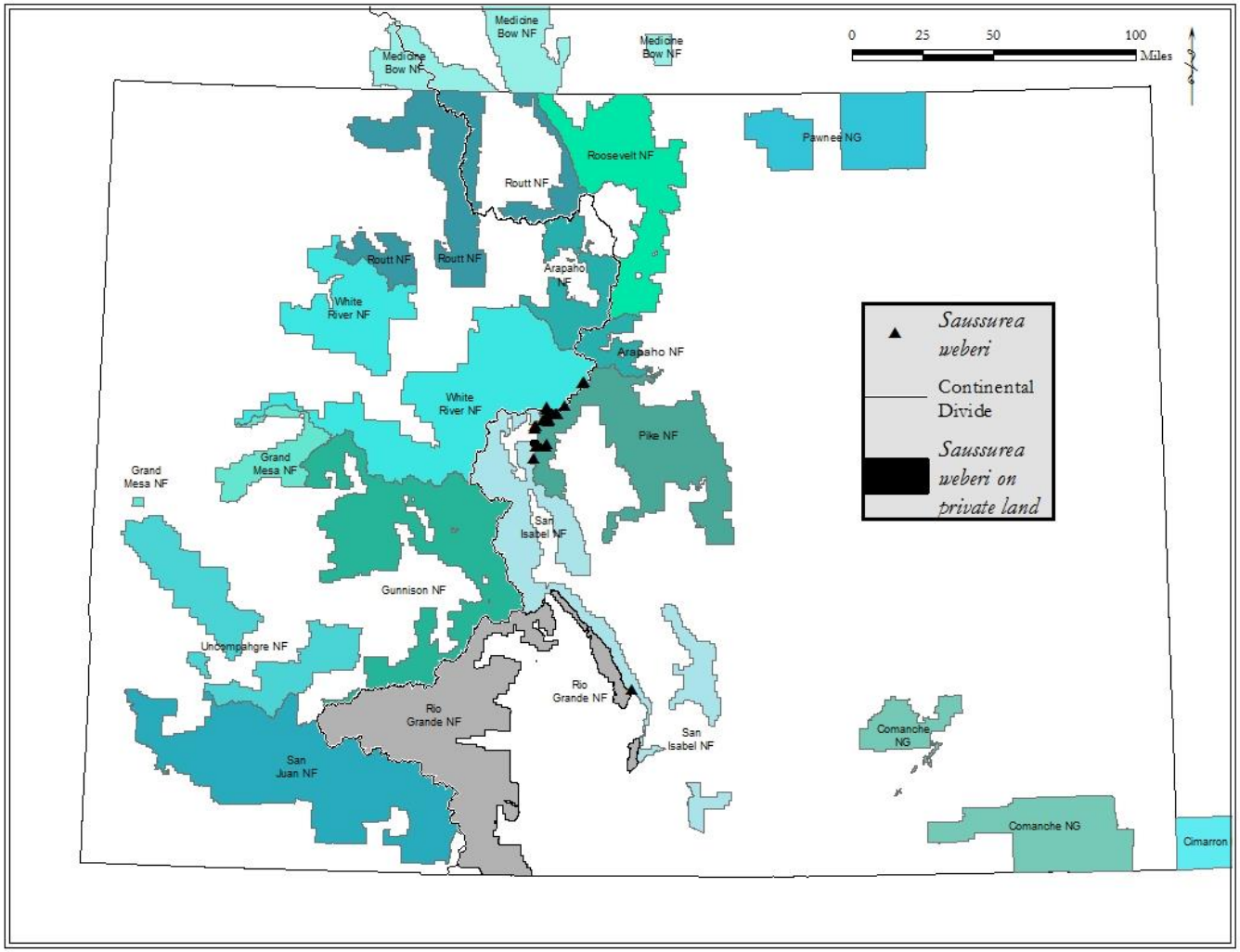

Figure 1. Species Modeled Habitat and Reported Occurrences.